

# WEEKLY BULLETIN

CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH

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GUY P. JONES  
Editor

## THE KENNY TREATMENT OF POLIOMYELITIS IN THE ACUTE STAGE

MARTIN MILLS, M. D., Chief, Crippled Children Services, California State Department of Public Health

Considerable interest has developed among the medical profession and the general public in the Kenny method of treatment for infantile paralysis. Because of the excellent results that have been reported following this method of treatment, most physicians and institutions treating poliomyelitis in the acute stage will attempt to use the method insofar as they are equipped to do so. Also, there is no doubt that reluctant physicians or hospitals will be subjected to great pressure from parents of afflicted children and from the general public to use the Kenny treatment.

It is, therefore, of the greatest importance that every hospital that may expect to admit cases of acute poliomyelitis make preparations to apply properly the method of treatment.

Although the Kenny system of treatment of poliomyelitis is quite complicated and technical in its entirety, the principles to be followed in the acute stage can be applied with a minimum of trained personnel and equipment. Each large communicable disease hospital should attempt to send a team of one physician and one ward nurse to attend the "Physician's Short Course in the Kenny Treatment" and the "Course in the Kenny Hot Pack Treatment" at the University of Minnesota Center for Continuation Study in Minneapolis. Each course is of one week's duration, and the costs are quite low except for transportation. In several instances the county chapters of the National Foundation for Infantile Paralysis have paid for these periods of training. Longer courses of two to six months' duration are offered at the University of Minnesota for physical therapy technicians or nurses in the system of muscle reeducation and training. The ideal team consists of a physician, a

nurse, and a physical therapy technician who have had special training in the Kenny technique.

In instances where time does not permit the training of local personnel in the Kenny system, the Crippled Children Services of the California State Department of Public Health will undertake to assist the hospital in instituting this method upon request. It is emphasized that this treatment is for the acute case of poliomyelitis and that treatment should begin as soon as the diagnosis is made. It is believed that for each week's delay in starting proper treatment, the eventual care required is prolonged one month. After the acute stage is past, arrangements can be made through the Crippled Children Services to continue care in one of several hospitals that have technical personnel equipped to provide muscle reeducation and training if these facilities and personnel are not available locally.

The technical details of the Kenny method of treatment of infantile paralysis can not be presented here, but some principles and observations may be noted. To understand the Kenny concept and treatment of the disease, many of our previously accepted ideas must be forgotten or reversed. In the acute stage the disease is *not* one of flaccid paralysis and the proper treatment is *not* immobilization of limbs in splints, slings, casts, sandbags, or braces. The most important symptom in the acute stage is muscle spasm and pain and one may safely say that the disease is not poliomyelitis unless spasm is present in some muscle group. The muscle groups most frequently affected by pain and spasm are the back and neck, the hamstrings, the posterior calf muscles, the pectorals and the muscles of respiration. Handling of the limb, stretching the



muscle, massage, muscle testing and the application of casts or splints only increases spasm and make application of proper treatment impossible.

Pain and spasm are properly treated by the application of hot fomentations or packs changed every two hours (or oftener) for 12 hours each day.

"Mental alienation" is the second symptom and the term is used to describe a condition in which voluntary action of a muscle is impossible even though that muscle and its nerve paths are not directly involved by the disease. Muscles that are non-functioning due to mental alienation are the ones formerly thought to be affected by flaccid paralysis. The symptom, mental alienation, when present is generally found in opponents of muscle groups in spasm as noted above.

The third symptom is incoordination which may occur within a muscle itself or may be the result of one muscle group attempting to replace or act for a muscle that is alienated or in spasm. An example is the improper use of the sartorius as a hip flexor in place of the ilio-psoas.

Both mental alienation and incoordination are treated by restoring mental awareness and muscle training and reeducation.

The results of proper treatment by the Kenny method are such that no one who has studied the cases treated can be other than enthusiastic. No claim is made that paralysis does not occur in those cases that have permanent injury to the anterior horn cells of the spinal cord. Deaths occur among those having the best treatment. But the ideal for which we have long strived of no contractures, no fixed deformities, no stiff joints or fibrosed muscles, can be reached by this method. The skin of limbs treated by the Kenny method is firm, elastic, warm and pink compared to the loose, clammy, plum-colored skin seen in these cases before; muscles are soft, flexible and receptive compared to shortened, fibrosed inelastic muscles; scoliosis, distorted rib cages and weak or "absent" abdominal muscles is not found among those treated by the Kenny method.

Dr. John Pohl states, "Within the limits of the present knowledge and means of treatment of the disease it (Kenny method) offers the patient the maximum assurance of recovery and restoration of functions of his motor system." Dr. Philip Lewin says, "The Kenny treatment is one of the most outstanding advances in orthopedic surgery since the time of Hugh Owen Thomas and Sir Robert Jones."

Some notes on the use of the respirator or "iron lung" in poliomyelitis may be of interest. Sister Kenny and the physicians who have worked with her believe that the respirator has no place in the treat-

ment of poliomyelitis. Respiratory difficulties or failure in polio is caused by (1) bulbar poliomyelitis or (2) by spasm of the intercostals, pectorals, or diaphragm. In the first instance, it is the opinion of the medical profession that the respirator is of no value and in fact is contraindicated. In the second instance, the mechanical pumping of the chest serves only to increase spasm and to aggravate the cause of respiratory distress, spasm. The proper treatment of spasm of the respiratory muscles is hot fomentations changed as often as every 10 minutes if necessary until the spasm is relieved. Results of treatment by the Kenny method of respiratory distress and failure due to spasm in the muscles of respiration have been astounding.

For further information regarding the Kenny method of treatment for infantile paralysis, reference is made to the following articles and publications:

Pohl: The Kenny Treatment of Anterior Poliomyelitis.  
J.A.M.A., April 25, 1942.

Daly, et al.: The Early Treatment of Poliomyelitis.  
J.A.M.A., April 25, 1942.

Editorial: J.A.M.A., December 20, 1941.

Lewin: The Kenny Treatment of Infantile Paralysis During the Acute Stage.  
Ill. Med. Journal, April, 1942.

Cole, Pohl, Knapp: The Kenny Method of Treatment for Infantile Paralysis.

Booklet published June, 1942, by the National Foundation for Infantile Paralysis and available to physicians from the national or local chapters.

This list is by no means complete.

## DR. MILLS ATTENDS KENNY SHORT COURSE

Dr. Martin Mills, Chief of Crippled Children Services of the California State Department of Public Health, attended the Kenny short course for physicians at the University of Minnesota during June. Dr. Mills has written an article pertaining to this course which is published in this issue of the Weekly Bulletin. He will be glad to answer any inquiries from public health workers relative to the practical value of this course.

It is hoped that many Californians may be able to take advantage of the opportunities presented at the University of Minnesota for learning more of this important contribution to the treatment of infantile paralysis.

## HEALTH OFFICERS NEWLY APPOINTED

Dr. Lewis H. Sanborn has been appointed City Health Officer of Benicia to succeed Dr. Nazareth J. Crisp.

Dr. D. J. Bleiberg has been appointed health officer of Plumas County to succeed Dr. Levin N. Osell.



**MADERA COUNTY CHILDREN IMMUNIZED**

Dr. Lee A Stone, Health Officer of Madera County, has reported that between December 9, 1941, and May 27, 1942, 1,175 children in the elementary schools of Madera County were given two dose injections for immunization against diphtheria. In addition, 367 children received one dose of alum precipitated toxoid making a total of 1,542 immunizations administered. The 367 children who received only one dose of the toxoid were unable to receive the second dose because their parents had moved from the county or they failed to accept the opportunity to obtain the second dose. Most of these failures were due to parents leaving the county in order to go into war industries. Only children between the ages of 9 months and 10 years were immunized.

In 1940 an immunization campaign was conducted in Madera County at which time 3,557 children were immunized making a total of more than 5,000 immunized during the past two years. All of this work was done by the county health officer assisted by members of the local medical profession in the various school districts of the county. At the present time, more than 95 per cent of all elementary school children in Madera County have been protected against diphtheria.

An immunization campaign against smallpox will be instituted by the county health department during the fall months.

**POMEROY HEALTH LIBRARY DEDICATED**

Dr. John L. Pomeroy who served as health officer of Los Angeles County for more than 20 years assembled a public health law library which has grown from a few volumes to more than 3,500 works on public health subjects. On June 24th, county officials, doctors of medicine, friends and co-workers of Dr. Pomeroy met in the building occupied by the Los Angeles County Health Department and dedicated the library to the memory of the late health officer, naming it the Dr. J. L. Pomeroy Memorial Library. Dr. Pomeroy died March 24, 1941 and this growing library will stand as a fitting memorial to this efficient and valiant public health worker.

**REVISED LIST OF REPORTABLE DISEASES***Reportable Only:*

- Anthrax
- Botulism—if commercial product notify State Department of Health at once.
- Coccidioidal Granuloma
- Dengue—keep patient in mosquito-free room.

- Epilepsy
- Food Poisoning
- Glanders—report by phone or telegraph.
- Jaundice—infectious or epidemic types.
- Malaria—keep patient in mosquito-free room.
- Pneumonia—specify type of pneumococcus, if known.
- Relapsing Fever
- Rheumatic Fever
- Rocky Mountain Spotted Fever
- Tetanus
- Trichinosis
- Tularemia
- Undulant Fever

*Reportable and Subject to Isolation:*

- Epidemic diarrhea of the newborn (in institutions)
- Chickenpox
- Dysentery—Amoebic
- Dysentery—Bacillary—specify type, if known.
- German Measles
- Influenza
- Measles
- Mumps
- Ophthalmia Neonatorum
- Psittacosis
- Rabies—in animals. Use special card.
- Rabies—in humans.
- Septic Sore Throat (in epidemic form).
- Trachoma
- Tuberculosis—use special card.
- Whooping Cough
- Syphilis—use special card.
- Gonorrhea—use special card.
- Chancroid—use special card.
- Lymphopathia Venereum—use special card.
- Granuloma—Inguinale—use special card.

*Reportable and Subject to Quarantine and Placarding:*

- Cholera—report by telephone or telegraph to State Department of Health.
- Diphtheria
- Encephalitis (Infectious)—specify type, if known.

NOTE: This means all forms of acute encephalitis such as St. Louis type, equine type, and any other epidemic form occurring in California.

- Leprosy
- Meningitis (due to the meningococcus).
- Paratyphoid Fever—specify type A or B.
- Plague—report by telephone or telegraph to State Department of Health.
- Acute Anterior Poliomyelitis
- Scarlet Fever
- Smallpox
- Typhoid Fever
- Typhus Fever
- Yellow Fever—report by telephone or telegraph to State Department of Health.



## MORBIDITY\*

## Complete Reports for Certain Diseases Recorded for Week Ending July 4, 1942

## Chickenpox

363 cases from the following counties: Alameda 56, Butte 2, Colusa 1, Contra Costa 1, Fresno 13, Humboldt 1, Inyo 2, Kern 2, Kings 2, Los Angeles 156, Madera 1, Marin 1, Merced 2, Monterey 4, Orange 5, Riverside 11, Sacramento 17, San Bernardino 6, San Diego 27, San Francisco 21, San Joaquin 7, San Mateo 9, Santa Barbara 2, Santa Clara 2, Santa Cruz 1, Solano 6, Stanislaus 1, Sutter 4.

## German Measles

282 cases from the following counties: Alameda 54, Contra Costa 2, Fresno 1, Kern 4, Kings 18, Los Angeles 77, Marin 13, Monterey 1, Orange 6, Riverside 1, Sacramento 5, San Bernardino 7, San Diego 24, San Francisco 37, San Joaquin 10, San Mateo 12, Santa Barbara 3, Santa Clara 5, Stanislaus 2.

## Measles

1235 cases from the following counties: Alameda 146, Butte 3, Colusa 6, Contra Costa 6, El Dorado 55, Fresno 5, Inyo 8, Kern 6, Kings 2, Los Angeles 466, Madera 1, Marin 6, Merced 7, Monterey 15, Orange 33, Placer 2, Riverside 30, Sacramento 40, San Benito 1, San Bernardino 20, San Diego 97, San Francisco 137, San Joaquin 14, San Luis Obispo 1, San Mateo 25, Santa Barbara 6, Santa Clara 45, Solano 46, Stanislaus 1, Trinity 1, Tulare 2, Ventura 2.

## Mumps

606 cases from the following counties: Alameda 58, Butte 4, Colusa 2, Contra Costa 4, Fresno 53, Inyo 13, Kern 2, Kings 2, Los Angeles 157, Madera 1, Marin 4, Monterey 7, Napa 1, Orange 6, Riverside 15, Sacramento 17, San Bernardino 11, San Diego 101, San Francisco 46, San Joaquin 15, San Luis Obispo 3, San Mateo 13, Santa Barbara 12, Santa Clara 21, Solano 31, Stanislaus 1, Sutter 1, Ventura 4, Yolo 1.

## Scarlet Fever

62 cases from the following counties: Alameda 5, Inyo 4, Kern 3, Los Angeles 27, Merced 2, Riverside 5, Sacramento 2, San Bernardino 1, San Diego 7, San Francisco 4, Santa Clara 1, Solano 1.

## Whooping Cough

176 cases from the following counties: Alameda 14, Butte 6, El Dorado 4, Fresno 8, Humboldt 4, Kern 4, Kings 4, Los Angeles 39, Monterey 2, Orange 5, Riverside 32, Sacramento 13, San Bernardino 1, San Diego 17, San Francisco 2, San Joaquin 7, Santa Barbara 1, Santa Clara 5, Solano 4, Trinity 1, Ventura 2, Yolo 1.

## Coccidioides Granuloma

3 cases from the following counties: Kern 1, Los Angeles 2.

## Diphtheria

8 cases from the following counties: Alameda 1, Fresno 3, Los Angeles 3, Riverside 1.

## Dysentery (Bacillary)

4 cases from the following counties: Los Angeles 3, San Francisco 1.

## Epilepsy

24 cases from the following counties: Alameda 2, Lake 1, Los Angeles 19, San Francisco 1, San Joaquin 1.

## Influenza

28 cases reported in the state.

## Jaundice (Epidemic)

2 cases from the following counties: Los Angeles 1, San Diego 1.

## Malaria

2 cases from the following counties: Los Angeles 1, San Joaquin 1.

## Meningitis (Epidemic)

6 cases from the following counties: Alameda 1, Los Angeles 2, San Francisco 2, Yolo 1.

## Paratyphoid Fever

3 cases from the following counties: Alameda 2, Los Angeles 1.

\* Data regarding the other reportable diseases not listed herein, may be obtained upon request.

\*\* Cases charged to "California" represent patients ill before entering the state or those who contracted their illness traveling about the state throughout the incubation period of the disease. These cases are not chargeable to any one locality.

## Poliomyelitis

3 cases from the following counties: Kern 1, San Diego 2.

## Rabies (Animal)

16 cases from the following counties: Fresno 3, Los Angeles 13.

## Rheumatic Fever

1 case from Los Angeles county.

## Tetanus

2 cases: Los Angeles county 1, California\*\* 1.

## Typhoid Fever

1 case from Yuba county.

## Typhus Fever

1 case from San Diego county.

## Undulant Fever

7 cases from the following counties: Los Angeles 4, Orange 2, San Bernardino 1.

The California State Department of Public Health is proud of the members of its staff who have entered the armed forces of the United States. It is with a sense of great pride that the names of the following men who have entered such forces are listed here:

## UNITED STATES NAVY

Lloyd P. Bascom  
Alcor Browne  
O. L. Butterfield  
James R. Keefer  
Francis J. Lenehan  
E. B. Mansfield  
Rollyn E. Malde  
Don Roberts  
Robert E. Ryan

## UNITED STATES ARMY

Beckwith Clark  
Jules Comroe, M.D.  
Leon Comroe, M.D.  
Joseph Copeland, M.D.  
Sidney F. Dommies, Jr.  
Robert Dyar, M.D.  
George Husser, M.D.  
Edward Maher, M.D.  
Richard Peters  
Julius R. Scholtz, M.D.  
Joseph B. Smith

## UNITED STATES MARINES

John Cruzan

University of California  
Medical Library,  
3rd & Parnassus Aves.,  
San Francisco, Calif.

